

RESOURCE PROTECTION

Safeguarding Washington's natural legacy

Washington is rich in natural beauty and diverse resources. Protecting these resources, addressing natural hazards, and maintaining healthy ecosystems requires a balanced and adaptive management approach. To meet the challenge and safeguard this natural legacy, DNR applies current scientific research and works to anticipate risks, create clear and effective regulations, and build partnerships.

**The Tripod
Complex Fire**

about 5 miles
northeast of
Winthrop. By early
August, when this
photo was taken, the
fire had grown to
44,282 acres. In the
end, 175,000 state
and federal acres
were burned.

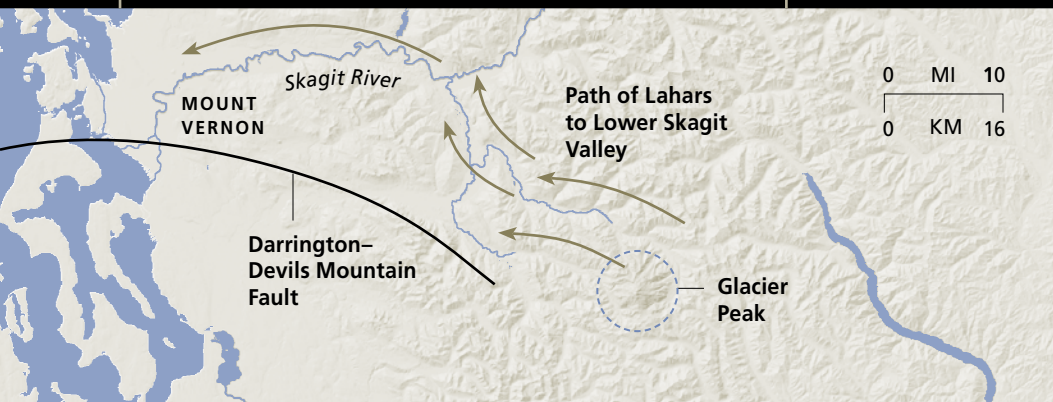
**2006 STRATEGIC
PLAN FOR WILDFIRE
PROTECTION**

Since 1986, the last comprehensive look at DNR's fire program, much has changed on the 12.7 million acres of forests protected by DNR. Today, there are an additional 1.6 million people in Washington, a 40 percent population increase, meaning more homes in or near the woods, often without fire protection. Climate changes and other factors have deteriorated forest health conditions. These changes risk public and firefighter safety, increase costs of fire suppression, and accelerate losses of habitat and forest resources.

DNR's 2006 Strategic Plan for Wildfire Protection was prepared with the assistance of an external advisory committee. Also instrumental in developing the plan were the 2005 Fire Suppression Study by the

Joint Legislative Audit and Review Committee (JLARC) and the 2004 Strategic Plan for Healthy Forests.

The plan establishes goals and strategies based on preferred conditions in the year 2020, recognizing that forest health is critical to developing and maintaining fire-resistant forests and to ensuring that conditions are safe, resources and habitat are protected, and wildfire protection is achieved at the lowest net cost to taxpayers and landowners. The plan's other goals emphasize collaborative partnerships, public and firefighter safety, and sustaining economic, ecological, and social resources.



DATA SOURCE: GEOLOGY AND EARTH RESOURCES DIVISION / DNR.

◀ Mapping Washington's Geologic hazards

Mudflows triggered by past volcanic activity at Glacier Peak traveled the length of the Skagit River Valley at least twice in the last 5,000 years.



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Safeguarding Present and Future Resources

GEOLOGIC HAZARD MAPPING

DNR's Geology and Earth Resources Division completed an important block of geologic mapping in the north Puget Lowland. This delineated the Darrington-Devi's Mountain fault zone—a major, active, regional fault crossing north-south lifelines between Seattle and Vancouver, B.C., including Interstate 5 and gas pipelines.

The project also identified the extent of past lahars from Glacier Peak. Lahars are mudflows that originate on the slopes of volcanoes, primarily during eruptions. They traveled the length of the Skagit River Valley at least twice in the last 5,000 years. One of these events deposited five times the amount of material deposited by lahars from Mount St. Helens in 1980. The cities of Lyman, Sedro-Woolley, and Burlington are built on lahar deposits, and geologic mapping is crucial to assessing future danger to these communities.

Similar mapping projects were completed in other parts of the state, advancing our knowledge of, and response to, geologic hazards statewide.

FOREST HEALTH PROGRAM

Results of the 2005 annual aerial insect and disease damage detection survey, conducted by DNR and the USDA Forest Service, revealed newly killed trees or current defoliation on approximately 2.5 million acres of forest. This is a significant increase over past years, and reflects new bark beetle damage and expanding western spruce budworm populations. Surveys of the exotic organism "Sudden Oak Death" in western Washington detected it at only one site, downstream from an infested horticultural nursery.

In addition to monitoring forest health, DNR is conducting research and strategic planning for state trust lands, and using federal Western Bark Beetle Prevention and Restoration funds to assist private landowners with forest improvement projects.

DNR held public meetings across Washington to educate citizens about forest health conditions and gather comments on suggested legislation developed by the Forest Health Strategy Work Group. A report, proposed legislation, and forest health budget package will be presented to the 2007 Legislature.

2006 PERFORMANCE MEASURES

- ▶ **Treated 7,865 acres of forest lands for bark beetle infestation, exceeding the target for this year by 5,215 acres.**
- ▶ **Ensured that 99% of large forest landowners inspected by DNR are on-schedule to complete road corrections required for the protection of salmon habitat.**

Trees defoliated by the western spruce budworm. After about three years of this, the top of the tree dies. After four, the tree is killed.

FOREST HEALTH PROGRAM / DNR

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MEETING THE CHALLENGES OF THE 2006 WILDFIRE SEASON

DNR met the challenges of the 2006 wildfire season in spite of its length and intensity. No DNR firefighter or member of the public was killed or severely injured as a result of wildfire on lands protected by DNR, and only 4 percent of fires on DNR-protected lands grew beyond 10 acres, due to early detection and rapid response to the wildfires.

The forecast at the start of the 2006 wildfire season was favorable, but the potential for wildfire activity was high, particularly in areas with concentrations of insect-killed dead and dying trees. By July, low precipitation and humidity combined with frequent winds to create extremely dangerous conditions. Lightning-caused fires strained DNR's response capabilities until weather conditions moderated in mid-October. Nine large wildfires occurred east of the Cascade Mountains. More unusually, large, dangerous wildfires burned west of the mountains as well, often close to heavily developed suburban areas. As conditions worsened in August, the governor declared a statewide emergency.

To address these challenges, DNR cooperated with a variety of partners, including local agencies, the Washington State Patrol Fire Marshal's Office, and the Department of Military Emergency Management Division. Cooperation with federal land management agencies facilitated effective sharing of available resources within Washington, and brought in firefighters from across the country. DNR received international firefighting assistance from Canada, Australia, and New Zealand. DNR employees also assisted in firefighting efforts in other states.

By late October, 961 wildfires had burned 51,208 acres on DNR protected lands. More than 462,000 acres burned across all jurisdictions in Washington. Compared to the previous 5-year average, 2006 had about 16 percent more fires; the acreage burned was also much higher.



PHOTOS BY ERIC WISCH / DNR

FIRE CAMPS

An Incident Command Post (ICP) is the hub of operations in wildland fire management. Whether in county fairgrounds or a remote field, the camp is rapidly assembled, often starting with basics like electricity, phone service, and internet access. Along with portable kitchens, showers, and toilets, workspace is provided for those who create plans, track finances, generate maps, and run communications. As quickly as it is set up, an ICP disappears when management objectives are met.

Early detection and rapid response prevented most wildfires on DNR-protected lands from growing larger than 10 acres.

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Demonstrating Commitment

SPOTTED OWL RULES

The Forest Practices Board enhanced protection for northern spotted owls by adopting two permanent rule amendments. Formerly enacted as emergency rules in 2005, the amendments were made permanent in 2006 following four public hearings. One amendment removes a provision that permitted land harvested by one landowner under an approved conservation plan to be counted also by an adjacent landowner toward the total conserved habitat required within a spotted owl site. The amendment thus strengthens protection for the owl by eliminating the possibility that particular acres within the designated owl habitat area could be counted twice by landowners. This ensures the total required percentage of conserved habitat is maintained. The other amendment prevents decertification of areas identified as spotted owl sites by the US Department of Fish and Wildlife until June 30, 2007, at which time the Board expects to receive guidance from the new federal recovery plan.

ADAPTIVE MANAGEMENT

The Forest Practices Board unanimously approved a rule change requiring landowners, before harvesting timber, to locate on the ground the uppermost point of stream flow. This will pinpoint more accurately where protections for non-fish-bearing streams should begin and replaces an earlier option that was based on default basin sizes, which recent scientific research revealed to be inaccurate. Adjusting rules in response to new scientific information is part of the adaptive management process that guides resource protection. Continuing this process, a group of policy and technical experts is working to develop simple, non-technical approaches to protect upper headwater-streams.

FOREST PRACTICES HCP

The Washington State Forest Practices Habitat Conservation Plan (HCP) was approved in 2006 by the U.S. Fish and Wildlife Service and NOAA's Marine Fisheries Service. Covering 60,000 miles of stream habitat across 9.3 million acres of private and state forestlands, it protects aquatic species habitat and helps preserve healthy forests. Commissioner Sutherland and Governor Gregoire signed the Implementation Agreement for the plan on June 5. This 50-year agreement with the federal government recognizes that Washington State's Forest Practices Rules meet the requirements of the federal Endangered Species Act for aquatic species and of the Clean Water



LUIS PRADO / DNR

Act. Approval of the plan secures consistent environmental protection and the sustainable economic benefits of responsible forestry, while giving private forest landowners clarity and increased predictability concerning regulations. The HCP employs a robust adaptive-management research and monitoring program and is the product of a decade of collaboration among diverse stakeholders including tribes, forest landowners, and environmental groups.



FITZGERALD'S PHOTOGRAPHY

Pat McElroy

HONORING
37 YEARS OF SERVICE

We are pleased to honor and thank Pat McElroy for his long and distinguished career with DNR. Since 1963, Pat has filled many roles at DNR, both in the field and at DNR's headquarters. In 1994 he retired, but returned in 2001 as DNR's Executive Director of Regulatory Programs. Never one to slow down, he also became State Forester, elected-fellow of the Society of State Foresters, and President of the National Association of State Foresters. He led DNR through some of the most intense fire seasons in state history, and was instrumental in developing the Forest Practices Habitat Conservation Plan and Strategic Plan for Wildfire Protection.

Over the course of his 37 years at the agency, Pat has been a guiding force in the development of future leaders and stewards at DNR and elsewhere. He retired this year in December.